

**BQC-93-018**

Date: May 7, 1993

To: Nursing Homes  
Hospitals  
Facilities for the Developmentally Disabled  
Ambulatory Surgery Centers

BQC-93-018

NH 12  
HOSP 7  
FDD 7  
ASC 2

From: Susan Wood, Deputy Director  
Bureau of Quality Compliance

Subject: Automatic Sprinkler Systems in New Construction of Elevator Shafts

The Bureau of Quality Compliance has received inquiries regarding the use of sprinkler systems in elevator shafts in new construction. To answer the question, we refer to National Fire Protection Association (NFPA) 13 - 1991 ed. Paragraph 4-4.1.7.2 of NFPA 13 says "One sprinkler shall be installed at the top of shafts". It is our understanding that the intent of this paragraph is to require sprinklers in elevator shafts.

We have requested an interpretation from the Health Care Financing Administration (HCFA) inquiring into their position on this requirement for Medicare and Medicaid certification of nursing homes, hospitals and free-standing ambulatory surgery centers which must meet NFPA 101.

HCFA has referred us to the commentary in the Automatic Sprinkler Systems Handbook (by Robert Soloman, P.E.) specifically, section 4-4.1.7.2, which reads as follows: "Codes that cover elevator design do not permit water discharge in elevator shafts until electrical power to the elevator cab has been secured. This necessitates some special arrangement, such as a preaction system, to protect such shafts". HCFA has advised us that they will accept this special arrangement.

Effective immediately, the Department of Health and Social Services will require that automatic sprinklers be installed in elevator shafts and equipment rooms for new NFPA 13 sprinkler systems for hospitals (HSS 124), nursing homes, ICF/MRs, and ambulatory surgery centers.

If a preaction system is utilized, the Bureau of Quality Compliance will require that the sprinkler system design comply with ASME A 17.1-1990 Rule 102.2 (copy attached).

SW/JH/jh

7699.nm

ASME A17.1 – 1990

SECTION 102 – ELECTRICAL EQUIPMENT, WIRING, PIPES, AND DUCTS IN HOISTWAYS AND MACHINE ROOMS

Rule 102.2 – Installation of Pipes or Ducts Conveying Gases, Vapors, or Liquids in Hoistways, Machine Rooms, or Machinery Spaces [excerpt]

- (c) Standard sprinkler protection conforming to the requirements of ANSI/NFPA 13 may be installed in these spaces, subject to the following:
  - (1) All risers and returns shall be located outside these spaces.
  - (2) Branch lines in the hoistway shall supply sprinklers at not more than one floor level.
  - (3) Shutoff valves shall be provided for each branch line in accessible locations outside these spaces.
  - (4) Means shall be provided to automatically disconnect the main line power supply to the affected elevator prior to the application of water. This means shall not be self-resetting. The activation of sprinklers outside of the hoistway or machine room shall not disconnect the main line power supply.
  - (5) Smoke detectors shall not be used to activate sprinklers in these spaces or to disconnect the main line power supply.
- (d) Other pipes or ducts conveying gases, vapors, or liquid and not used in connection with the operation of the elevator shall not be installed in any hoistway, machine room, or machinery space.